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**Farmland Protection, Habitat Restoration, and Recreation Enhancement in the Mokelumne
Corridor:
A Vision for the North Delta**

INTRODUCTION

Due to the degraded state of the Bay-Delta ecosystem, the threat of farmland conversion to urban sprawl, the potential for habitat restoration in North Delta waterways and islands, and the proximity of these resources to the Cosumnes River Preserve, TNC has expanded the scope of their Cosumnes River Project to include the North Delta. Two parcels initiate our work. Staten Island, a 9200-acre delta island bordered by the North and South Forks of the Mokelumne River, recently signed on as a private Preserve partner, while the McCormack-Williamson Tract, 1600 acres which link the current Preserve to Staten Island, is under option by TNC and will soon be acquired in fee and added to the Preserve.

The Nature Conservancy's current activities in the expansion of the Cosumnes River Preserve--the purchase of McCormack-Williamson Tract and addition of Staten Island as a private Preserve partner--create opportunities for the Delta community as a whole. The goals of the Preserve address concerns common to all stakeholders: flood control, farmland protection, the reestablishment of shallow water fisheries for declining fish populations, improvement of riparian habitat, and increased recreational boating opportunities.

The Nature Conservancy of California

The Nature Conservancy is a private, non-profit conservation organization dedicated to the preservation of biodiversity. TNC works to protect this planet's diversity of species by protecting the lands and waters they need to survive. The Nature Conservancy employs the following strategies to reach these ends:

- close work with local communities to develop and recognize human industries that are economically desirable and environmentally sustainable;
- purchase of fee title and conservation easements from willing sellers;
- outreach to local agencies and land owners to keep surrounding lands healthy;
- catalysis of other conservation efforts; and
- development of land management techniques for conserving and restoring native communities to a healthy balance.

The Nature Conservancy's practice is to work with - not in opposition to - local communities.

COSUMNES RIVER PRESERVE

The Cosumnes River Preserve is a collective operation which combines the strengths and expertise of state and federal agencies with the opportunities and skills of private conservation organizations to create a multi-owner, jointly managed protected area within the lower floodplain of the Cosumnes River. TNC initiated the Preserve in 1984 and retains lead responsibility for land acquisition and for planning. Other partners include the Bureau of Land Management, California Department of Fish and Game, State Wildlife Conservation Board, California Department of Water Resources, Sacramento County, American Farmland Trust, and Ducks Unlimited.

The goals of the Preserve are to:

- protect critical natural habitats in the lower floodplain of the Cosumnes River and Delta Wetlands through acquisition of fee ownership and easements;
- secure habitat for imperiled species such as the sandhill crane, anadromous and resident fish, and wintering waterfowl;
- restore natural hydrologic processes to the Cosumnes River floodplain and wetlands;
- maintain economically productive agricultural uses and encourage the use of "wildlife-friendly" farming practices.

The Cosumnes River is a unique natural resource: it is the largest free-flowing river in the Central Valley of California. The watershed encompasses a rich array of natural communities, including wetlands, riparian forests, blue oak woodland, and vernal pool grasslands. The Cosumnes River Preserve now includes approximately 14,000 acres of farmlands, ranchlands, and natural areas..

The extension of the Preserve further into the Delta, following the flow of the Cosumnes River into the Mokelumne corridor, accomplishes the stated goals of the project by protecting Central Valley farmland and critical wintering habitat for migratory waterfowl on the Pacific Flyway. At the same time, it expands the habitat goals of the Preserve by offering the potential for restoration of the most threatened of California ecosystems: freshwater tidal marsh.

Section I: The Mokelumne Corridor

MCCORMACK-WILLIAMSON TRACT

The McCormack-Williamson tract is a 1654-acre island at the north-eastern edge of the Sacramento-San Joaquin delta. The Mokelumne River forms its eastern shore, while Lost and Snodgrass Sloughs flow along its north and western boundaries, respectively. Access to the island is along Franklin Boulevard at the San Joaquin/Sacramento county line. Following Bean Ranch Road west from Franklin Boulevard,

access follows the north bank of the Mokelumne River through low-elevation farmland which is inundated each winter. After crossing under Interstate 5, the approach to the island takes you up to a higher levee which splits to encircle the MW tract. The tract is completely surrounded by 8.9 miles of non-project levees which tend to fail in heavy flood events.

[paragraphs here on history of the island - when reclaimed, current limit on levee height, etc. Ask Stein Buer for text]

MW Tract experienced levee failures in 1955, 1958, 1964, 1986 and 1997. Because of this frequent flooding and the consequent reparation costs, the owner decided to relocate his farm operations to another property. TNC is buying the island at fair market value.

The MW tract is currently being farmed in row crops. The infrastructure of the island includes electrical lines, water pumps, a 2,000 foot high radio tower, a drilling pad, and a few dilapidated farm buildings. While some of the current uses will be maintained, TNC's preference for the property is to phase out farming and restore tidal habitat.

STATEN ISLAND

Staten Island has been farmed since the late 1800s and is under one ownership. The 9,200-acre parcel is a model of wildlife-friendly farming. The managers of Staten Island provide seasonal habitat for waterfowl by flooding farm fields, managing upland habitat along levees, and creating small areas of permanent wetlands among the crops. Staten Island recently joined the Cosumnes River Preserve as a private partner. One of the goals of this partnership, along with the further enhancement of waterfowl habitat, is to jointly explore tools for maintaining current farming practices on the island, thus protecting the island's high value as a wildlife sanctuary and working farm.

Protecting Staten Island's wildlife habitat values means protecting its farming operation, which in turn means assuring that the levees which surround the island maintain their integrity and are properly maintained. Flood threats to Staten Island arise from flows in the Cosumnes-Mokelumne corridor and are heavily influenced by what happens to the McCormack-Williamson Tract levees. Integration of the McCormack-Williamson Tract into the Cosumnes Preserve may present opportunities for management of that property in a manner that provides additional protection to the Staten Island levees.

A NEW PARTNERSHIP

Jointly, Staten Island and MW present an opportunity to achieve ecosystem restoration goals in a manner that furthers flood control and the interests of the local community. For Staten Island, this means continued farming along with infrastructure improvements that will allow better management for waterfowl during the winter season - an evolution of current practices.

For the much smaller MW Tract, this probably means restoration for wildlife habitat and reduction in the area of farmland. Perhaps ultimately a breach of the levee will allow tidal flows to reenter the island. How this kind of non-structural restoration project would be done - phasing, design, specifics - will be determined through a public planning process. Because the issues associated with MW restoration are complex, and the opportunities immense, the next few sections of this document focus specifically on that property.

photo - Jim and Sally Shanks, Staten Island, mention awards for waterfowl management

Section II - MW Tract - where and what

With its mineral soils of alluvial clays and silts and low but not subsided elevations, MW offers an opportunity to restore historic habitats of critical value to invertebrates and fish and waterfowl, while enhancing recreation opportunities and flood control strategies.

Most of the island is at or near mean sea level, with 20% of the island above higher high tide and the southern tip 0-5 feet below mean sea level. The levee running along the Mokelumne averages 32.5 feet [check this number!] above the river and 16 feet above the land. This island is therefore of an appropriate elevation for tidal habitat restoration. A levee breach could allow tidal waters to return the island to its previous state as a fresh water marsh criss-crossed with channels, a habitat which has virtually disappeared since Delta islands were created beginning in the last century.

Besides improving habitat for declining fish species dependent upon this habitat type—delta smelt, splittail, juvenile Chinook salmon, steelhead—additional channels would provide a valuable opportunity for boat recreation. MW straddles two public access points for canoists and kayakers, Delta Meadows and the Cosumnes River Preserve, and would offer enthusiasts the experience of traveling from an undammed Sierra River to the braided lowlands of a tidal delta marsh. For motorized house-boats and low-power watercraft, the lower end of the McCormack-Williamson Tract may offer opportunities similar to those of the highly popular Delta Meadows area. MW is immediately adjacent to Wimpy's marina, and offers access to the historical delta town of Locke.

importance of island to flood management- upstream/downstream (Map graphic here)

Following are a number of management alternatives for MW:

1. **Continue farming.** This alternative could create additional winter waterfowl habitat but does not benefit fish, hydrology or recreation.
2. **Develop waterfowl habitat but don't breach levee.** This alternative could create additional winter waterfowl habitat but does not benefit fish, hydrology or recreation.
3. **Breach levee on the downstream end and restore a system of channels and islands.** This alternative benefits waterfowl, fish, and recreation, but does not improve flood control.
4. **Breach levee on the downstream end and allow controlled flooding across the east levee through a hardened weir at a lower elevation than current levee.** This alternative benefits waterfowl, fish, and recreation by returning the island to its historical topography, with the additional hydrologic benefit of reducing flood stages upstream and reducing the risk of a levee-failure-induced "wave" downstream.

The last alternative appears to have the most appeal, and is therefore discussed in detail in next section.

III. MW Restoration Alternative 4 - the potential benefits

Run through them (with graphics)

Flood benefits - upstream and downstream.

Recreation benefits - enhanced motorized and non-motorized boating; fishing, hunting.

Fish: improve rearing habitat for juvenile salmon and steelhead, all life stages of delta smelt and splittail

Ducks and Geese and Cranes

By improving/restoring the shaded riparian forest, especially in a continuous strip, provide nesting opportunity for Swainson Hawk and neotropical songbirds, and cover for riparian rabbit, an endangered species.

By increasing emergent wetlands, develop habitat for the California black rail.

This may be a good point to point out the benefit of the location, adjacent to CRP, develops a corridor for species of concern: riparian, shallow water, emergent marsh, protected ag (including Staten) thereby reaffirming the appropriateness of our involvement at this location.

Highlight benefit: facilitates repair and reconstruction of levees throughout Delta by providing a ready and cost-effective site for mitigation.

By managing the island to work with its natural propensity for flooding, the Preserve cuts costs to public agencies: FEMA no longer pays for levee repairs, and DWR loses the responsibility for draining the tract of flood waters. Furthermore, hydrological restructuring will benefit other delta islands such Dead Horse, immediately to the south, which loses levees regularly when high velocity water shoots out MW's levee breaks.

Implementing Alternative 4 will require permits from a number of state and federal agencies, especially for those actions which involve levee and floodway modifications. The environmental review process will afford many opportunities for comment by interested members of the public and affected agencies.

IV. Where do we go from here?

When the acquisition of MW Tract by The Nature Conservancy is complete, the property will be added to the Cosumnes River Preserve. Farming operations will continue on the land, just as they do on much of the other acreage of the Preserve. Levee maintenance and repair will be assured through the existing Reclamation District.

After acquisition, an implementation team will move forward with a detailed analysis of these options. That team will likely be led by the California Department of Water Resources (CDWR). CDWR is a state agency with experience and responsibility in the Delta, as well as a partner agency in the Cosumnes River Preserve. The goal of this team will be to formulate a proposal for the MW Tract by _____. This proposal will then be subject to environmental review and analysis, with opportunity for public review and input.

In the meantime, we would appreciate hearing your ideas. Please send them to the following address.

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